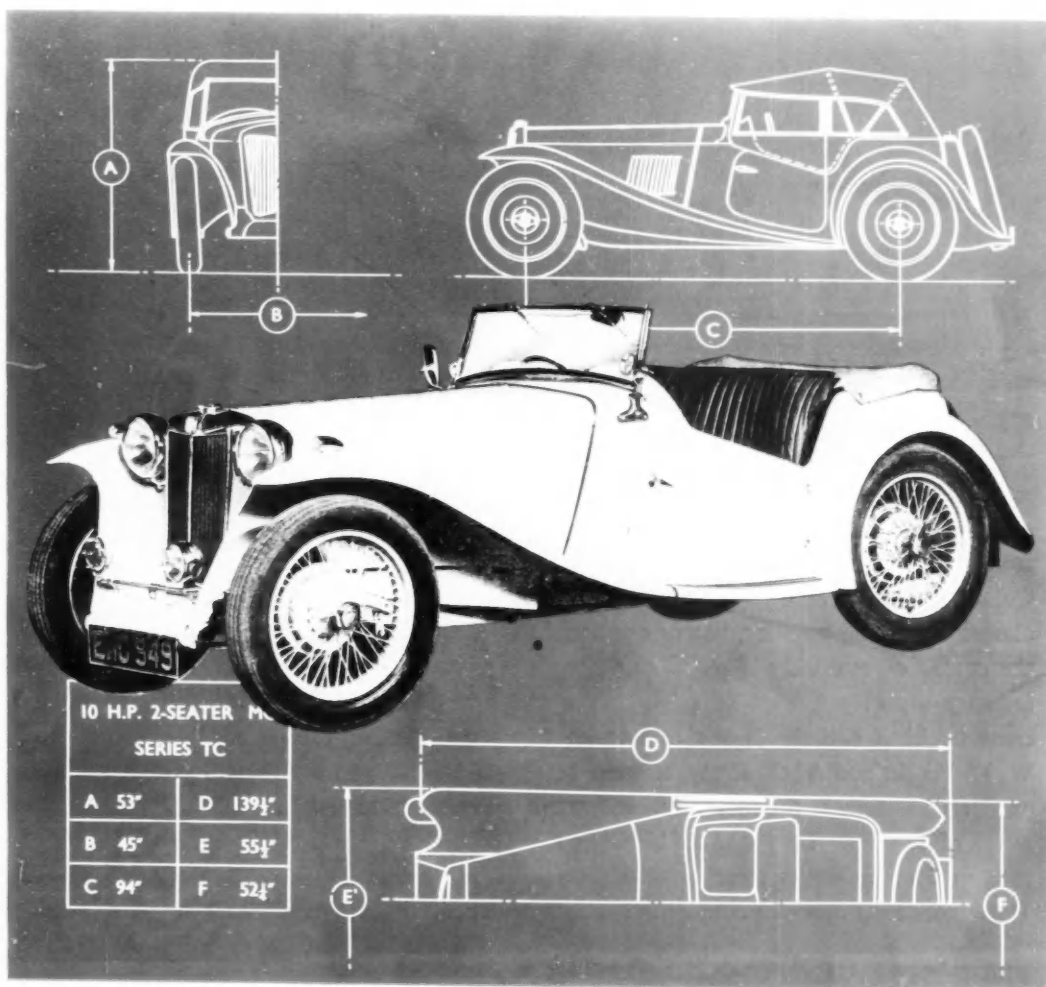


# DESIGN



A MONTHLY JOURNAL ISSUED BY THE COUNCIL OF INDUSTRIAL DESIGN



NUMBER TWO • FEBRUARY 1949



## ALL THE COLOURS OF THE RAINBOW

**I**F you study the rainbow, you will find in it only seven colours, the colours of the spectrum — violet, indigo, blue, green, yellow, orange and red. The British dyestuffs chemist provides an incomparably greater number. Colour, in the form of dyestuffs, enters into almost everything we wear, use or even eat in the course of our daily lives. The dyestuffs industry — purely British in origin, since it owes its birth entirely to the discoveries of W. H. Perkin and A. G. Green between 1856 and 1897 — today produces an enormous range of colours. By judicious blending the modern dyer multiplies these a thousandfold. This astonishing array of colours is necessary

because fashion demands an infinite variety of shades and each class of material its peculiar type of dyestuff. Offices need typewriter ribbons, carbon paper, printing inks and postage stamps. The textile trade would be helpless without dyestuffs. The list can be extended indefinitely. The British dyestuffs industry is working at full capacity and is being swiftly expanded to fill the vital need for exports — the 'sinews of Peace'. Wherever you see colour, you can trace the hand of the British dyestuffs chemist. He shows you where the rainbow ends.



**IMPERIAL CHEMICAL INDUSTRIES LIMITED**

P.R.2A

# DESIGN

NUMBER TWO • FEBRUARY 1949

A MONTHLY JOURNAL for industry, issued by the Council of Industrial Design and by the Scottish Committee of the Council. *Editor: ALEC DAVIS*

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## Contents

DESIGN IN ENGINEERING	<i>M. Hartland Thomas</i>	2
EVOLVING DESIGN POLICY	<i>T. A. Fennemore</i>	6
SELLING DESIGN IN SWEDEN	<i>Jean Stewart</i>	11
NEWS OF NEW PRODUCTS		13, 16, 17
DESIGN CENTRE FOR RAYON INDUSTRY		19
BEFORE AND AFTER		20
DESIGN AND PRODUCTION		22
SHORTER FEATURES		15, 18, 23, 24

## Industry and the 1951 Festival

THE COUNCIL OF INDUSTRIAL DESIGN has been charged by the Government with responsibility for the selection of all manufactured goods to be shown in the 1951 Exhibitions.

It is too early to announce who will select, how they will select and how the selectors will themselves be selected, but it is by no means too early to announce the main principles of selection and the steps which the Council is taking to ensure that 1951 will provide a worthy platform for British industrial prowess.

The Council is anxious to ensure that there shall be no misunderstandings; that there shall be no occasion for complaint in 1952 that manufacturers were not told clearly and in time what kind of show it was going to be.

First, let it be clearly stated that all exhibitions sponsored by the Festival of Britain Organisation will be selective exhibitions and not trade fairs in which individual firms may buy space. The British Industries Fair will be held as usual in 1951, and it will be the shop window for individual manufacturers. The Festival exhibitions will be, as it were, special showcases for goods of the highest quality only—not neces-

sarily those which are the most costly, nor even those which sell fastest, but those of which British industry can be most proud. The Council has been made responsible for the selection because good industrial design embraces all aspects of quality—materials, construction, appearance, function, convenience, engineering excellence and saleability.

Next, there must be no misunderstanding on the delicate subject of appearance-design. The Theme of the Festival and of the sponsored exhibitions is Great Britain's contribution, past, present and future, to civilisation and culture in the Arts, in Science and in Industry but, except where an historical record is necessary or a flight of Wellsian imagination appropriate, the emphasis will be on the present. The intention is to confine exhibits to contemporary production, contemporary techniques and the contemporary idiom in design. This does not mean that there will be a straining after novelty for its own sake but that designs will be lively and of today—which does not exclude those basic designs that remain as good as they have ever been, such as the Windsor chair and many hand tools.

In the third place, the exhibitions will be thematic; they will tell a coherent story, with each section revealing a part of the main theme. Therefore products will not be grouped category by category in warehouse fashion, but each will be shown in a context.

\* \* \*

Before there can be any selection there must be an assessment of what is available. As no catalogue of excellence in all categories of industry exists, the Council has started one—the "1951 Stock List," a pictorial index of all manufactured products of a standard that could qualify them for display, or at least for submission to the selectors. It is confidently expected that this Stock List will provide the most fruitful source of material for all those concerned with translating the Festival theme into terms of display.

An appeal has gone out through trade associations, chambers of commerce and industrial organisations, reinforced through the trade press. The appeal is to send to the 1951 Stock List, c/o The Council of Industrial Design, photographs, catalogues, leaflets or samples illustrating those products (or prototypes) which manufacturers or designers consider their best. They may be pins or pianos, buttons or buses. News of new processes and new materials which, if brought to the notice of designers, can be exploited in time to enrich the Stock List, will also be welcomed.

If any manufacturer so requests, his products will be treated as strictly confidential; but the Council anticipates that this Stock List will have a wider usefulness than for the immediate purposes of 1951 and will become an invaluable reference for all manner of enquiries about British industrial design from home and abroad.

P. R.

# DESIGN IN THE ENGINEERING INDUSTRIES

by Mark Hartland Thomas MA FRIBA MSIA \*

WHEN CONSIDERING the design of pottery or carpets or textiles it is possible, though dangerous, to confine one's attention to the final form of the product and to consider only the immediate aesthetic effect. In regard to the engineering industries, such an attitude cannot be sustained for one moment; the word *design* being already in use in another sense. So far from referring to the formal qualities of a product as they appeal through the eye and the other senses, *engineering design* does not commonly even refer to the functional qualities of efficiency and convenience in use, but to the exercise of mechanical ingenuity by the engineer-designer.

In this paper the engineering industries will be classified according to the users of their products, rather than the technologies employed or the trade associations into which they are divided. We can consider the engineering industries as working for the four broad departments of a Design for Living. For the *home*, engineering produces small mechanical equipment such as radio, vacuum cleaners, sewing machines, refrigerators. For *work*, the products are machine tools, agricultural machinery, mining machinery and instruments of production of all kinds. For *recreation*, there are such things as cinematograph apparatus, the electric hare and totalisators, or broadcasting installations. For *transport and public services*, we have vehicles, and the engineering appliances required for gas, electricity, water, sewage, telephones, and so on.

This subdivision brings into relief the aspects of design that should be given most importance. In engineering for the home, the accent should be upon shelf appeal, cost, and simplicity in operation. For work, it should be on productive efficiency first, with ease of maintenance a good second. For recreation, the accent would be upon modernity—the latest and most efficient sound recording for the cinema, for example. In engineering for transport, there is a strong accent on fashion (with speed and the appearance of speed as the chief components of fashionableness), balanced by

economy in operation, particularly in fuel consumption. For the public services, the chief design requirement is reliability.

## Design data

These different aspects of design imply variations in the design data that form the designer's instructions from his client or managing director. Before he begins to work he must receive these instructions or data; sometimes he supplies them himself or elicits his data by interrogating his employer. A designer's terms of reference are to create something in conformity with specific instructions, but the terms of reference can never determine the design automatically: that is a heresy of the extreme functionalistic position.

The data tend to fall into recognisable groups. First, there is the function that the apparatus is required to perform. Then there are considerations of cost: these in terms of design must often appear as the search for economy of means, rather than as absolute costing. Next come considerations of manufacture, convenience for production. Then there is saleability and, lastly, case of maintenance, though this is the only factor that does not apply in every case.

## Function

Considerations of function include not only the machine and its performance but also the relation between the machine and people who are to use it. The operator's point of view is most important in the design of domestic appliances; it is impossible to assume any degree of mechanical talent on the part of a housewife. In factory plant, a similar approach is desirable; if the machinery is designed for simplicity and convenience in use, the factory manager's personnel problems are eased by making it unnecessary always to employ highly-skilled operators. Design considerations here are identification of controls by shape, position or colour contrast; correct height of seats; or the dimensioning of machinery to agree with the scope of a person's reach when lifting something of a certain weight.

\* Summarised from a lecture at the Royal Society of Arts.



Great use was made during the war of the skill of the psychologist in the design of weapons and equipment; for example, handles were developed for controls in aircraft that would be instantly identifiable by touch of a heavily gloved hand, although the interior of the aircraft was in darkness. One should mention in this connection Sir Charles Goodeve's work for research and development at the Admiralty, much of which is now available to industry, and the current work of Sir Frederic Bartlett at Cambridge University, which is particularly concerned with "displays" of instrumentation for the control of military service apparatus. Experimenting to find what kinds of visible and audible signals will engage the operator's attention in the manner necessary for most efficient working is almost of equal interest to industry as to the Services, and there is a strong movement to make the Cambridge work available to industry.

The design of the means of manufacture is inevitably part of product design, and it is no very long step to the inclusion of the design of the factory environment also as part of the means of manufacture. The other day, when I was asking a group of textile machinery designers and users what, in their view, was the most important coming development in textile machinery, I expected the answer to be in terms of mechanical engineering; but it was nothing of the sort. The answer was unanimous that the immediate line of progress was in the design of machines in relation to their users, the ease and convenience of controls, the proportioning of the different parts of the machine to the human scale, the shape and colour of the machines, so as to be compatible to the worker.

The designer should always remember that his product must sell, and saleability depends chiefly upon the customer's appreciation of what he is being offered. The product should be designed so that its convenience and excellence of performance are clear from its appearance. "Justice should not only be done, but should manifestly and undoubtedly be seen to be done." The appearance should demonstrate that all the design requirements have been fulfilled, particularly requirements of simplicity and safety of operation, serviceability, ease of cleaning, and maintenance.

Regard to ease of maintenance is not always in the designer's instructions, for many things are made to be thrown away when they have served their purpose or show signs of wear. Indeed, there is a strong tendency, especially in America, to *style* products in a fashionable manner which will cause them to appear obsolete before they are worn out and prompt the purchaser to change to a new style of product introduced shortly afterwards. This might be called not so much the design of consumer goods as the design of goods for galloping consumption. It is doubtful whether, with purchasing power greatly extended to many parts of the world now being industrialised, there is likely to



1 For the home, "accent upon shelf appeal, cost, simplicity in operation"

Bunny food whisk by Leonard Robson Ltd

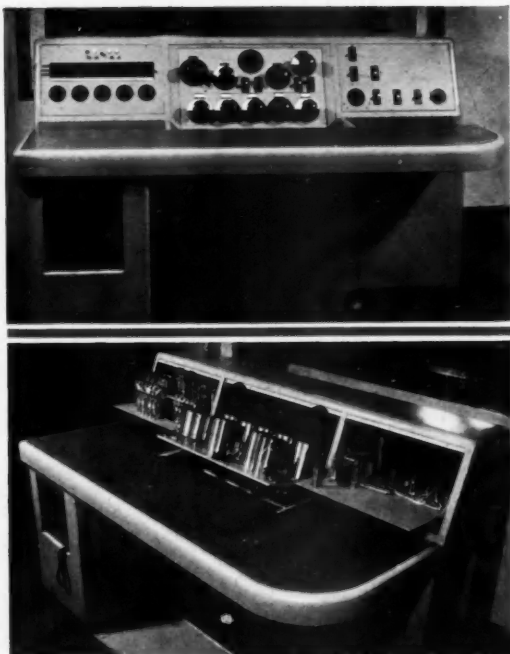


2 For work, productive efficiency must be considered first then ease of maintenance"

Maxicut 3A gear-shaper by Drummond Bros Ltd

be so strong an economic pressure towards design for obsolescence. It is, however, not always disadvantageous. Much industrial equipment has in the past been too solidly made and has lasted too long. This is one of the difficulties in which British industry finds itself today: machinery a hundred years old is still working well enough, though if it could be scrapped, the more modern machines might be very much more efficient.

The designer's objective is easy enough to state simply: he is designing for the production of things to be sold, which, when bought by a customer, will be of use to him. A particular design project would be outlined as serving some consumer need either already established or anticipated in the future. It would be



**3** Left, For recreation: "accent upon modernity" in the many mechanical devices employed  
BBC standard studio control desk—in lower picture, with panels swung forward for maintenance

Above, For transport and services: "accent on fashion . . . balanced by economy in operation"  
RD diesel-engined road-roller by Marshall, Sons & Co Ltd

**4**

expected to attract custom within a certain price range in specific markets that might exist in more than one part of the world; it should be capable of production by such and such a factory or industrial group, and it is often laid down that the product should use a particular range of materials.

The design process consists in assessing these factors. This is first done analytically, giving to each its proper weight, then, secondly, the factors must be collected altogether into a synthesis or integration. This is the essence of the designer's work. Thirdly, the process becomes analytical again when proposed solutions are checked against the data. Some design factors can be established mathematically and when this is possible mathematical method is commonly employed, but it is very rare in a design project for all the factors to be capable of statement in mathematical terms. Although mathematics can assist in presenting design data and in the after-check of results, it cannot provide design solutions. Between the assembly of data and the final check, there is always the leap in the dark. It is this element that causes the engineering designer to take pleasure in an "elegant" solution.

#### **Steam valve or life class**

Designers fall into two large fraternities: the education of one fraternity began with the steam valve: for the other fraternity, it was the life class. The life-class

fraternity believes that the steam-valve fraternity designs with a slide rule, and they in turn think that the life-class fraternity is good only at putting pinchbeck gold on to perfectly good gingerbread. These two fraternities do not know each other properly and view each other with suspicion, whereas it is of the greatest importance for the healthy development of industrial design to make them realise that the two should be resolved into one. This I feel will happen when they realise that in the essential design process, there is no difference between them; then the steam-valve fraternity will no longer be ashamed of the artistic element in their work, but cultivate good taste; and the life-class fraternity will become more methodical in assembling their data and in checking their results.

The recent "functionalist" approach to design can be taken as evidence of the life-class designers trying to be more methodical; but functionalism is not so fashionable as it was, and there is a risk of its being dropped suddenly and a superficial artiness taking its place. This would be a gravely retrograde step. It is to be hoped that before it is too late, the steam-valve designers will meet the life-class half-way. There are hopeful signs already. For instance, this was said by Wing-Commander T. R. Cave-Brown-Cave in his presidential address to the engineering section of the British Association: "The technique of investigation depends upon a combination of systematic analysis of the requirement with the more artistic inspiration

which shows a promising method of meeting the requirement." He referred also to the young engineer's need to cultivate "a creative inventiveness," "skill in human relationships," and elsewhere "an accurate imagination."

Professor J. F. Baker of Cambridge University has for many years been endeavouring to introduce aesthetic interests into undergraduate studies for the Mechanical Sciences Tripos. The standpoint of authorities such as these provides evidence that the present degree of specialisation in engineering training and practice is a grave weakness. There seems to be no learned or professional body that is concerned with *whole* designs. The engineering student is prepared for a single-track career by rarely, if ever, having to tackle a whole design project in the course of his training. There is, I believe, no term's work in his curriculum concerned with the synthesis of the information that he has collected.

It is difficult, of course, to add new subjects to an already overloaded curriculum. What is wanted is a change of attitude in the manner of teaching and then the curricula would take care of themselves. So would engineering practice. Let the engineer realise that he has been something of an artist all the time, but for some reason has been ashamed of it. Then he would form the habit in his studies, and in his practice, of relating the parts to the whole as he goes along.

This change would have a profound effect on the work of the practising engineer, as well as on the undergraduate and industrial apprentice. The synthesis that is required is broader than the mere collection of different engineering techniques, even with the addition to them of certain artistic skills. It is an industrial synthesis that would include the contribution of management or leadership. If the designers of a product must take into account, besides its form and function, such things as the materials available, the machinery and methods of production, the welfare of the operatives (as, for example, in using leadless glazes), costing and sales techniques, the converse is also true, for the persons who are mainly concerned with these factors are also concerned with design.

Management is beginning to emerge as a profession. It is profoundly to be hoped that in the plans for this profession the designer's attitude will be cultivated. Management training should have a threefold background in scholarship, science, and art. The manager's skill should consist in the creation of a factory environment that is design-conscious. An industrialist told me recently that design "even reflects upon the mentality of the workers, who will give more attention to a good design than an indifferent one."

It may be suggested that if the responsibility for design is so widely diffused it will tend to eliminate the designer himself. This should not be so. A widely diffused responsibility for design would give the industrial designer the mental climate that he needs to

work in and a better recognition of the importance of his contribution. The method of creating a comprehensive design policy is being much discussed at the present time.\* How should a design department be introduced? What should be the designer's status? To which other department should he be attached? Industrial design being such an important element, the leadership of design should be carried at director level in an industrial company, so that the voice of design can be heard when definitive decisions are being taken.

### The consultant

It will be asked how the consultant designer comes into the picture. Normally, he should be used as a stimulant to the factory's own design staff, rather than the author of ready-made solutions. The consultant tends to be a person broadly versed in the elements of design, with special knowledge in patches according to his experience of different commissions. It is impossible for him to have the same kind of knowledge of a factory's problems and capabilities as the members of the staff: conversely, it is impossible for them to have his wide experience of design in different fields. He is able to fertilise one industry with ideas and experience from many. If a consultant is employed by management and kept at arm's length, his work is doomed to failure. But if you open your works to him and treat him as frankly as you would your doctor or your solicitor, and if you insist upon his working closely with your factory staff, you have a good hope that his ideas will be productive of good and saleable designs. There is also another and very highly developed kind of engineering design consultant, who is prepared to take over the whole process of design including the preparation of production drawings; but his type of consultancy, indispensable as it is in certain cases, is the exception rather than the rule.

To sum up: The study of industrial design in relation to the engineering industries leads to the view that design can have no true meaning unless it refers to artistic design and engineering design taken together as one indivisible whole; secondly, that the expression *industrial design* is devoid of meaning unless it refers to the designing of industry at the same time as designing for it—industrial design is a process that takes place within industry, not something developed in a studio to be imposed upon industry at irregular intervals; finally, that, given the first two, industrial design is a function of industrial management and should be incorporated into the background in which management will develop as a newly recognised profession.

\* See, for example, pp. 6-10

# Evolution of a Design Policy

*Practical advice for the manufacturer: by T. A. Fennemore*

IT IS NOT altogether surprising that very few firms, whether manufacturing or distributive, have in the past given much thought to the planning and adoption of a design policy. From the beginning of the Industrial Revolution and until recent times it was natural that industry should be pre-occupied very largely with problems of technique: the improvement of existing machines and the invention of new ones: development of new processes of manufacture: the speeding-up of production: the search for new and less costly raw materials.

Industry and commerce were also much concerned with problems of selling. Sales techniques were developed, new markets and new methods of merchandising were created. Intense competition brought about a lowering of prices, and on the whole better and better values were offered. In many industries the tempo of change in design was accelerated and greatly increased ranges of patterns were made available. The palate of the public was tickled by a spate of consumer-goods of unbelievable variety and novelty, but frequently the number of designs sampled by manufacturers was so large as to be wasteful, and led only to the same size of order being spread over far too many lines. Fashion, in industries concerned with decorative design especially, was used more and more as a potent instrument in inducing bigger sales. On the other hand, some industries producing plant and mechanical equipment persisted in the manufacture of machines of outmoded appearance.

It cannot be denied that for a hundred years or more the system brought large profits; but the effect upon design was unfortunate, if not disastrous.

## **Benefit to public and industry**

There are today, however, indications of a fundamental change. Manufacturers and distributors are recognising that they have a wider responsibility to the public to produce and distribute worthier goods and more efficient services. This policy of serving the true needs of the community, instead of the old system of competitive adaptation to demands which were often artificially created, can bring incalculable benefit to the public and in the long run, I make bold to say, rich reward to industry itself.

There have, of course, been glorious exceptions to

the generally gloomy state of affairs in the past. A number of industries can proudly claim their equivalents of Wedgwood pottery, of the Orient shipping line, of Powell's glass. In such as these—and there are a fair number that will come to your mind—the firm in question, though financially successful, has not subordinated everything to an exclusively financial policy; there has been a high standard of design and quality of workmanship and honesty of material imposed by those in control, and most jealously guarded and upheld. The chief designer has enjoyed prestige and authority in the firm and no decision on design has been made without his acquiescence. In short, *the firm has had a clear and consistent design policy*, well integrated with production, sales and finance policies, not dominated by them.

## **Plan for future prosperity**

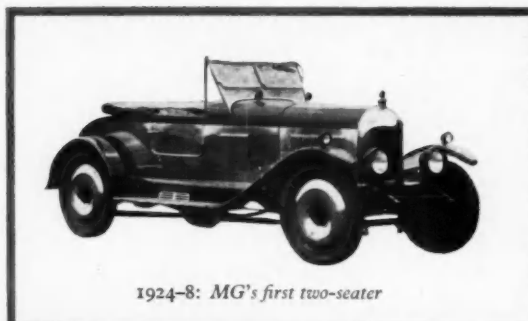
What, then, are the factors a company must take into account in planning a design policy; and how can that policy, once decided, best be put into operation? The answers to these questions will vary industry by industry and more particularly firm by firm; in this short essay, it is only possible to generalise.

The first question to be asked is whether the business is at present successful. If it is not, drastic innovations in design may help towards its recovery. But it is possible that a successful business, enjoying increasing trade, would also be well advised to institute a design policy—not, in this instance, planned to interfere with the present successful lines, but as a supplementary and possibly long-term plan. To give an example, a firm may be enjoying very successful trade as a result of building up a reputation over many years for well-designed traditional or reproduction lines; but at the same time it may be missing new business because it has no contemporary designs to offer.

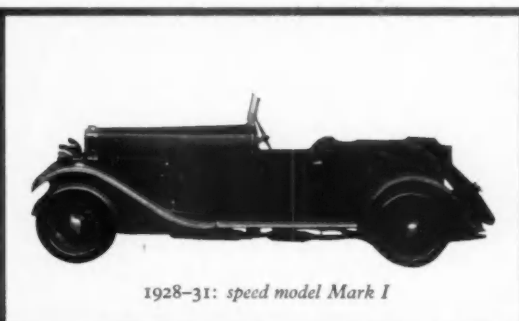
It is essential, therefore, as a first step towards formulating a policy, to examine existing lines and their sales; the markets in which it is intended to sell; and the factors that contribute to the success of competitive lines—though NOT with a view to plagiarising.

Alongside these investigations, the materials, the plant potential and the processes used in manufacture must all be carefully considered. While it is generally





1924-8: MG's first two-seater



1928-31: speed model Mark I



1927-9: all-weather sports tourer



1932-3: MG J.3 Midget, supercharged

necessary for the designer to design for the existing machinery, it may sometimes be desirable that the technician should develop new processes for the designer. Silk-screen printing for relatively short runs of printed textiles is a case in point.

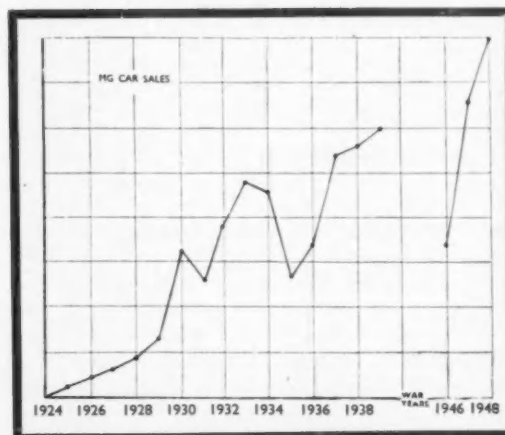
A constant watch upon developments in materials and the possible use of alternatives, while primarily the responsibility of research and technical departments, is also very much the concern of the design department. Quite obviously, design and research should walk in step. Sales departments must of course have some say in decisions on design, but there should always be a margin for experimental or "in advance" design to be given a trial. So often entirely new designs are either not put into work or, if sampled, are virtually killed at birth by the resistance of sales representatives, who have not been brought into the picture early enough to secure their goodwill.

A design policy should extend beyond the product to embrace the firm's trade-mark and letterhead, premises, equipment, furniture, vehicles, consignment labels, advertisements, packages—and for that matter packing-cases too: indeed, every item involved in the presentation of goods or services.

To decide upon a design policy, the most effective first step generally is to set up a Design and Development Committee within the firm, and in certain circumstances to employ the services of a design consultant, who may or may not be a practising designer.

Pursuing a consistent design policy—or, in the words of their own slogan, "maintaining the breed"—MG Cars have developed a style of their own, ever since the days of their first bull-nosed models. That policy (for which much of the credit must go to the late Cecil Kimber) has proved profitable. Though actual figures are not available, the graph below shows the relative volume of sales year by year. Through MG's seventeen years of peace-time trading, the curve has climbed with few setbacks: a reminder that good design can be very good business.

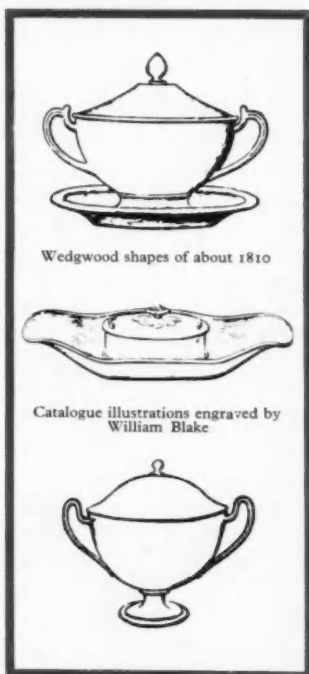
DESIGN's front cover illustrates the MG TC Midget current model, in production since November 1945







*Wedgwoods' new factory at Barlaston provides large-scale evidence of this Company's belief in the importance of good design*



Wedgwood shapes of about 1810



Catalogue illustrations engraved by William Blake



*Teapot of 18th-century design, in production today*



**WEDGWOOD:** The reputation of this firm was established—and the reputation of the nascent British pottery industry enhanced—by the first Josiah Wedgwood, whose policy was to combine technical development with employment of the best designers. Recent years have seen the alliance of good design and technical progress successfully resumed. Besides Victor Skellern, art director since 1935, a number of outside designers have worked for Wedgwoods, including the late Eric Ravilious, Arnold Machin, John Skeaping and Keith Murray, RDI, FRIBA—designer of pottery and of the firm's Barlaston factory.



*Teapot designed by Keith Murray, 1948*

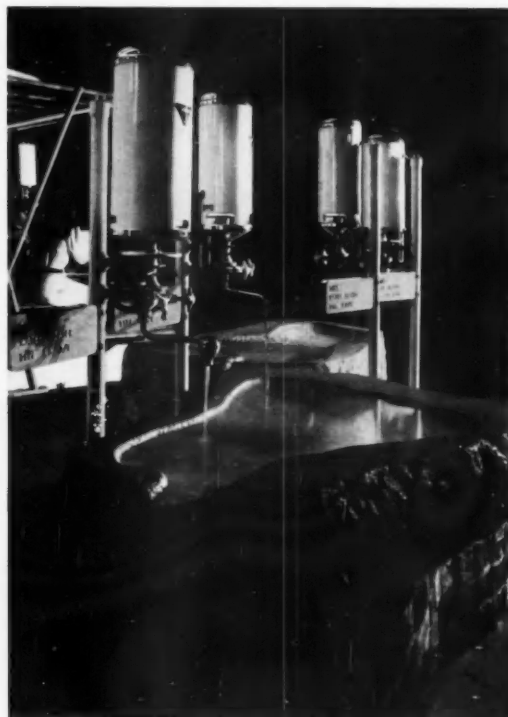
It will be his job to carry out preliminary investigations and prepare a report or reports for early discussion by the committee.

The constitution of the committee will depend on the size and nature of the company's business; typically it may consist of the managing director or his deputy, the production manager, sales manager, technical and research officers, chief designer and design consultant. It is important that the committee

should meet at regular intervals; this not only ensures a continuity of policy but keeps everyone on his toes. It is the business of the committee to consider all matters relative to design, to make decisions and to see that they are put into effect. The designer, whether consultant or staff man, must be made to feel that he is at least as important as any other member of this committee. His views must be listened to with no less respect than, say, the managing director.



Below, 1928 bath water-heater. Above, in the home . . .



. . . and on an Arcon-designed stand: Ascot heaters of today



**ASCOT:** The story of the Ascot water-heater is a story of steadily improved design and steadily increasing business. At first (1927-8) sales were only a few hundred a year: introduction of white vitreous - enamelled models brought a steep rise, and the climb continued until Munich days. . . . After the war, production was resumed and in 1946 sales reached a peak of 15,500. A subsequent decline to 14,800 in 1947 is attributed entirely to what Ascot's call "a crippling Purchase Tax."

To firms who have not previously worked on lines similar to those advocated, it may be surprising what can be achieved. Haphazard buying of designs will cease, thus effecting a considerable saving; experimental work will produce better results, and will be assisted by specific proposals for research put forward by the committee. Often ideas are thrown up in the course of the committee's work that prove to be invaluable. Substantial economies can nearly



Ascot's printed publicity is informative and well designed

always be effected. Not least important, the stimulus to the design department—if the head designer is a man of vision who does not resent this somewhat wider collaboration—produces remarkable results. Staleness, which all too often creeps into works studios, disappears, and a corporate pride in the firm's design achievements is quickly aroused.

Broadly, these observations apply also to the wholesale and retail distributive trades. The distributor



*First-class gallery in the new Orcades, largest and fastest Orient liner, which went into service on the London-Australia run in December 1948*



*Orient Line poster designed by Richard Beck, 1938*

**ORIENT LINE:** Selling not goods but services, the Orient shipping line has given a lead that many industries might follow in its progressive design policy—which is manifest in window displays, booklets and posters, as well as ships. For the post-war *Orcades* (and for other Orient liners, including the *Orion* and *Orcades* of 1936–7) the interior decoration was planned by Brian O'Rorke, RDI, ARA, FRIBA, MSIA. *The Times* Shipping Correspondent said of the new ship: "As

is usual with Orient liners immense care has been bestowed on the internal fittings, colour schemes, and decorations of the public rooms. . . ." Artists whose work is represented include Edward Bawden (curtains and paintings), John Hutton (carpet and fluorescent painting), John Nash (water colours), Margaret Kaye (needlework pictures), Barbara Jones (decorative direction-signs and pictures) and many others. The *Orcades* cost £3,250,000.

exerts a powerful influence on design in his selection and buying of stock: he also shoulders a large responsibility in deciding what goods shall or shall not be made available to the public. In the past, few traders have paid much heed to integrity of design; but those who have insisted upon a reasonably good standard have found that they built their business upon a rock; they have been able to withstand periods of intense competition and slump with goodwill firmly established and unassailable.

The individual firm, whether manufacturing or distributing, undoubtedly profits by gaining a reputation for a high standard of design. To the nation, leadership in design throughout a whole industry is an immense asset in securing and holding export markets.

It may be that many years will pass before industry adopts in all its implications the idea of scientific adaptation to serving the true needs of the community, and the full realisation that good design is a social responsibility as well as thoroughly good business. But if good design has not always proved profitable in the past—usually because of bad marketing and lack of an underlying design policy—at all events let it not be said that bad design is anything else but rank bad business.



*However sound a firm's design policy may be, it will not yield the best possible results unless it is backed up by good working conditions for the design staff. Exceptionally large windows let in abundant daylight to the studio illustrated here—in the wall-paper factory of A. Sanderson & Sons at Perivale, Middlesex*

## SELLING DESIGN IN SWEDEN

### *Stockholm department store's experiment reviewed by Jean Stewart*

THE GENERAL IMPRESSION in Britain today is that everything in Sweden is well designed. A visit to Sweden disproves this theory and to wander in the Nordiska Kompaniet, the big department store in Stockholm, is a good way to see a fair selection of the better-class goods now on sale. They are much the same as in Britain and one sees well designed and badly designed goods side by side. The furniture department has some well designed modern furniture, some good reproductions and some bad reproductions. In the lamp department there are well designed fittings and lamps, but alas, one sees far too many clumsy chandeliers, lanterns that give no light and those electric candles on which forever sit carefully placed trickles of imitation wax.

But the Nordiska Kompaniet has made a courageous experiment, and a large area has been given over to a department entirely devoted to well designed furniture and furnishings. Moreover, so that the department shall be a completely self-contained unit it is not accessible through the main store. It has its own entrance in a side street and a number of excellent windows. The department is called N K Bo (*Bo* in Swedish means nest or home) and there one can find most of the things needed to make a very attractive home.

The first impression one receives on entering N K Bo is of excellent display. Goods are shown in their proper setting and for people who cannot easily visualise how a room will look when finished—and there are many people who find this difficult—it is a great boon. The simplest methods have been used. Down two sides of the showrooms are a series of bays and in each one is shown a part of a room; one is perhaps a nursery, one a sitting-room and one a dining-room. Furniture, curtains, floor-coverings, china and glass are appropriately shown against pleasant background colourings.

Everything in N K Bo is moderately priced in order that people who cannot normally afford to go to the Nordiska Kompaniet will learn to go to the N K Bo department in its separate premises.

The furniture sold there is mainly the Triva Knock-down furniture designed by Architect Elias Svedberg, who is a director of the Nordiska Kompaniet and started the N K Bo experiment. The furniture is simple in design, and well made in attractive woods. The upholstered furniture is well stuffed but not heavy looking and the three-piece suite is conspicuous by its absence. One interesting feature

is a method for showing the quality of bedding. A section of a mattress has been cut out and a Cellophane window inserted so that one can see exactly how the mattress is constructed and what materials are used.

The fabrics are particularly delightful. The Swedes believe in using good, well woven fabrics, made to last, for upholstering their furniture. The Nordiska Kompaniet has its own textile studio run by Fru Sampe-Hultberg, herself a designer. Beautiful hand-woven fabrics are made; some of them are designed for manufacture by machine also: thus they can be produced more cheaply. Most of the upholstery fabrics have small geometric designs in good colours. A number of printed cottons, sold for curtains, come from the Jobs factory in Darlana, a very beautiful part of Sweden where national costume is often worn, a custom which may have influenced the Jobs family to produce these fresh and gaily coloured fabrics.

Much thought is given to lighting. In modern Swedish homes one finds that each light has been chosen and placed to suit the purpose for which it will be used. The lamps and fittings in N K Bo are simple, pleasant and efficient.

The pottery and glass is delightful, much of the pottery coming from the Gustavberg factory owned by the Swedish Co-operative Society. Some of the most attractive pieces are designed by a young designer called Stig Lindberg and both the shapes and decoration of his pottery are fresh and attractive.

Wallpapers are widely used in Sweden. They are mainly in light colours and simple designs. There is, however, a distinctly William Morris flavour in some of the newer patterns.

Models are used both for display and planning. A series of model rooms, placed at eye level in glass fronted shelves, demonstrate good and bad lighting. The bad rooms show dark colourings on walls, in furniture and fabrics, and badly-designed lamp fittings are placed on walls or in the centre of the room without thought for their uses. The good rooms are decorated and furnished in light colourings, with well-designed lamps placed in suitable positions for the purposes for which they would be used. Prospective home-makers can plan their rooms with models. A special table is available, the surface of which is marked out in 5-centimetre squares, and hinged walls can be placed at the correct dimensions of the room to be planned. Scale models of the furniture on sale in the showrooms can then be tried out.



*In N K Bo showrooms, movable screens make it easy to display furniture and furnishings in a convincingly home-like setting*

N K Bo is run by Fru Lena Larsson. A small section of the department is walled off to form her office and customers come there to discuss their furnishing problems. A portion of the office is curtained off so that coloured slides of completed rooms may be shown. Books which contain photographs of rooms decorated and furnished by Fru Larsson, together with cuttings of the wallpapers, textiles and carpets used, can be studied by the clients. All visitors to N K Bo may sit and read magazines and books on furnishing at their leisure.

A novel idea, a course for home-makers, was recently organised by Fru Larsson. An advertisement in the daily press announced it and so many replies were received that a "first come—first served" system had to be used. The group met in N K Bo one evening each week for seven weeks. Lectures were given but the work was mainly practical. By the end of the course each couple, or individual, had completed the planning of a room and the three best rooms were built up in the showroom and full credit given to the planners.

Another original idea was a quiz competition. Three rooms were furnished in the showroom and clients were asked for their criticisms and suggestions. The winning furnishing scheme was again displayed in the showroom and a notice exhibited with the winner's name.

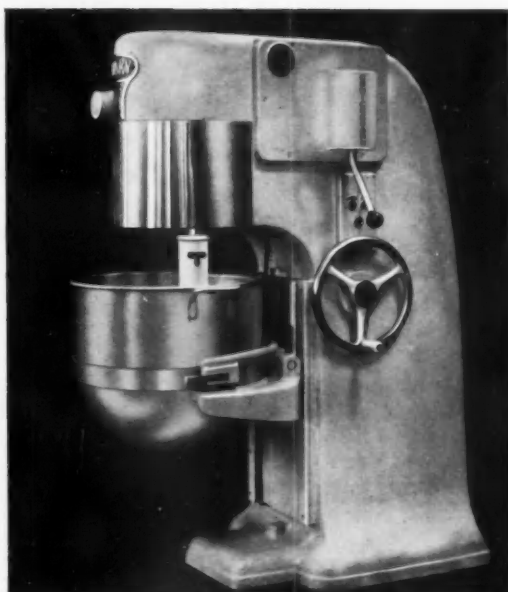
Why do we not do more of this sort of thing in Britain? It is of course all very well for a rich firm who can afford to lose money on a stunt, but the interesting point is that the department pays. Admittedly restrictions prevent us from having large departments full of new and lovely things,\* but would it not be possible to devote a corner of a showroom, or perhaps a window, to well designed objects? There is a school of thought which says that the public in this country does not want well designed goods and prefers, for instance, mock-Jacobean furniture to contemporary design. But how many people get the chance to see new ideas well displayed? Some fabrics and glass in good contemporary designs have not sold well, but is this surprising when one sees how they are displayed? A new fabric, hung among others of a type which customers are used to seeing, may not at once be appreciated, but if shown in its proper setting it has a much better chance of popularity. Selective display means taking a chance, of course, but in N K Bo it has proved a great success.

\* The writer is of course well aware that before the recent war Lewis's Ltd successfully introduced departments run on very similar lines into their popular-price stores in the North and Midlands. Good contemporary design was similarly introduced, in London, into various individual stores—e.g., Waring & Gillow's, Whiteley's, Bowman's.





*The Husky mixer as it was in the 1930's*



*... and the redesigned model now in production*

## Mixing machine modernised

### REDESIGN WINS WORLD MARKETS FOR SCOTTISH PRODUCT

BY REDESIGNING a mixing machine, an Edinburgh firm of bakery engineers improved its efficiency and its appearance, increased sales in the home and export markets, and reduced the cost of manufacture. At the same time, the machine's usefulness was extended to a variety of other industries.

The firm, James Cruickshank Ltd, made bakery equipment of every kind for large and small businesses before the war. During the war they had to concentrate on armament work, but about 1943 plans were considered for the return to normal production and it was decided to concentrate on a limited range of machines manufactured on a modified mass-production basis, consistent with the size of the plant.

Before embarking on this new policy, it was decided to redesign the most popular models, and a start was made with the *Husky*, an 80-quart four-speed mixer designed in 1930. It was realised that the original shape of the machine made it unpleasant in appearance and difficult to keep clean. It contained too many knobs and ridges, and the mechanical arrangement of the units was not above criticism. The electric motor, set on top of the main column of the machine, was exposed to dirt, flour and water,

and its position was considered to make for instability of the machine as well as being unsightly. Control of the gear-box was effected by a lever operating through a slot, which allowed dirt to penetrate into the box. The exterior drive from motor to gear-box was encased, but in a separate box, and this looked untidy. The beater head (which revolves in a planetary or "waltzing" motion in the mixing bowl) was an irregular casting, rotating at a fairly high speed and so exposed that it constituted a danger to the person operating the mixer.

In redesigning the machine, the firm placed the motor in the base of the column and the drive was carried completely within the column. These two improvements transferred most of the weight of the machine to its base. The gear-change lever was redesigned so that it was completely encased and any aperture for dirt eliminated. The beater head was also encased in a stainless-steel shroud, leaving only the beater itself exposed.

The motor starter (previously an external box bolted to the motor) was removed, and a flush-mounted starter with the switch-gear inside the column was substituted. All unnecessary knobs and

ridges were eliminated to give a smooth and pleasing exterior. A further refinement consisted of a visual lubrication indicator set into the side of the gear-box so that the operator could at any time check the lubrication of the machine.

Results justified the redesign. For the first time, to the firm's knowledge, bakers expressed approval of the machine's appearance. Orders were obtained in new markets. Still further improvements have recently been made. For instance, the elevating saddle which carries the mixing bowl was previously operated by hand, but is now power-operated through a hydraulic ram controlled by a finger lever.

Though the redesigned *Husky* sold in the home market, its price was too high for foreign buyers. The makers received enquiries from abroad for a mixer of the same capacity, but found they could not produce the *Husky* at a price that would sell in competition with manufacturers on the spot, who had no shipping or tariff charges to meet. So they produced a new machine, the *Consul*. Abandoning the cast-iron construction of the *Husky* (which weighs 16 cwt), they resorted to prefabricated steel construction.

Also, they had to provide a four-speed gear-box at a lower price than could be produced in their own factory. A proprietary gear-box, costing one-third of the price, was brought from a specialist firm: it is mounted within the column.

It was necessary to reduce the amount of machining, which is often involved in cast components; and, in fact, the head of the *Consul* is the only part of the entire assembly that requires machining. This is a compact unit carrying the bevel and planetary gears.

The first machine of this type was turned out as a plain rectangular box, with the mixing-bowl support bolted to it. Mechanically, it was satisfactory, but its severe appearance lacked visual appeal. The exterior was therefore redesigned, and by re-arranging the masses a more pleasing appearance has been achieved without increase in cost. By adhering to a uniform radius of curvature at all changes of plane, harmony of appearance has resulted.

There were several important results from the introduction of the new machine. The weight was reduced to 6 cwt (although it was still of 80-quart capacity) and the cost of manufacture cut by approximately 40 per cent. The firm made their way into the export markets at which they had been aiming, and began to sell all over the world. They were able to sell machines in the United States, and introduced the *Consul* into countries where mixing had formerly been done by manual methods. Its designer gained second place in the food machinery section of a recent world-wide competition organised by the Lincoln Welding Foundation, Cleveland, Ohio, for the best-designed welded products.



Designed for export: the *Consul* mixing machine—prototype above, production model below. It costs roughly 40 per cent less to produce than the heavier *Husky* with the same capacity



In addition to its use in the baking industry, the *Consul* can be used for mixing plastics, chemicals, dyestuffs, adhesives, cork compositions, cosmetics and insulation materials. The machine has been made even more versatile by an attachment drive on the head, into which three pieces of equipment can be plugged—a vegetable preparer, a coffee grinder and a meat mincer.

The firm has also produced a 20-quart mixer, the *Envoy*, on similar lines to the *Consul*. Each of the three models, *Envoy*, *Consul* and *Husky*, is finished in pastel blue cellulose. The designer of these machines and others manufactured by Cruickshank's is Mr Fred Gallimore, technical director of the firm.

T. J. N. S.

# Colour and Lighting

## IN FACTORIES AND ON MACHINES

SOME SCIENTIFIC THOUGHT in recent years has been devoted to the use of colour in buildings; factory problems in particular have attracted attention. Practice remains an art, and the scientists themselves insist most vigorously upon this; but it is an art in which technical knowledge plays an exceptional part. This knowledge is drawn from many quarters—often from unexpected nooks and crannies of science—and its sound development depends on meetings of people with different but related interests.

The Council of Industrial Design recently organised a Conference to serve this purpose, in which the people who plan factory colour schemes and the people who carry out scientific investigation had ample opportunity for discussion. The Council was associated with the British Colour Council for the Conference, and the Royal Institute of British Architects was able to act as host.

### Improved health

Dr Ling, Medical Director of Roffey Park Rehabilitation Centre, and Mr R. F. Wilson, Art Director of the Colour Council, in the opening talks stressed the value of colour treatments. Dr Ling's work is the rehabilitation of factory personnel who become casualties of neurosis. He estimated the annual productive loss due to neurotic illness to be of the order of £100 million; his view, and Mr Wilson's, was that by good lighting and proper use of colour, the health of factory personnel and the productivity of factories could be improved.

His thesis gained supporting evidence from two speakers from the Building Research Station: Dr R. G. Hopkinson and Mr W. A. Allen. Dr Hopkinson spoke of the swing now taking place in lighting practice, from design in terms of foot-candles to the subjective approach,

in which comfortable and efficient vision are the criteria of design. At the lighting levels of 10 foot-candles or more which are now commonly found in factories, far more can be done to aid vision and reduce strain by improving the quality of lighting than by increasing quantity: in fact, Dr Hopkinson argued that increases in quantity now are more likely to add to glare problems than to improve visual performance.

### Dangers eliminated

The subjective approach ran through Mr Allen's remarks too, as he developed the idea of using colours in such a way that they made the work the natural focus of attention and diminished the dangers of distractions in the view. He showed a short film of the development of a colour treatment for a computing machine which reduced the strain of operating it.

In any discussion of factory colouring, machinery is naturally the centre of interest, and several speakers dealt with it. Apart from Mr Allen, there were contributions by Mr H. Grimshaw (of Alexander Carus & Sons Ltd), Mr H. D. Murray and Mr P. J. Gay of the Paint Research Station. Sometimes divergencies of view were evident, but for the most part there was agreement. The chief difference centred about the lightness of colour to be used on machines; one speaker was willing to admit pale colours where the others felt that generally they should not exceed in brightness the materials of the work itself. This view seemed to prevail, and has the practical significance that if it is correct it rules out cream or cream-and-green colourings, both of which were explicitly mentioned. Colours that gained support were grey tones of buff, pale green or blue. The "greying" was interesting because it emphasised the desira-

bility of avoiding colours which were stronger than those of the materials being worked. These three rules were mentioned: that machine colouring should be (a) in desaturated hues, (b) of about the same brightness as the work, and (c) of a colour related to the work in some way. Thus the complementary colour might be chosen—buff where steel was being worked, blue for wood-working, and so on—or a neutral tone if the work itself was colourful.

The need for simplicity was emphasised by most speakers, though differences in degree were evident. On the one hand it was suggested that, even if machines were kept mainly to one colour, the appearance of most factories was so complicated with odd shapes and shadows that there was no real danger of dullness. Colours for identification and safety would be present in any case, it was argued, and often the materials of the work, or wood, or the walls would introduce sufficient variety. On the other hand, one speaker thought there was merit in using two colours on machines, or even in colouring alternate machines in different colours.

### Machinery modification

The introduction of colour into factories is usually carried out against a good deal of opposition, and the person is fortunate who need not add to it by modifying the machines themselves. Major modifications would of course generally be impracticable, but Mr Allen mentioned the value of small screens fitted behind the work-point to simplify the immediate background. These are often practicable, and make a surprising improvement in comfort of working by removing the risk of distractions and strong lights and shadows very near the line of work. They are also a good place to put a colour chosen to give clarity to the work.

Mr Gay produced a lucid review of the types of paint which could be used for machine colouring. Some of the newer kinds (the so-called synthetic paints with resin media) offer generally the best resistance to staining and deterioration from the greases, oils and coolants commonly found in factories. Anyone who has

had an opportunity to see a factory some years after a paint treatment has been carried out can bear witness to the astonishing difference which proper choice of paint will make to the maintenance and general appearance of the place. Easy maintenance encourages good maintenance.

A point made by Mr D. L. Medd, of the Hertfordshire County Architect's Department, requires attention from the paint makers. At present, as he pointed out, the paint cards both of the British Standards Institution and of most makers show an arbitrary choice of colour, based on such factors as popularity and the special requirements of certain users. These restrict the architect, and Mr Medd made a plea for greater flexibility, mentioning the desirability of being able to mix a full range of colours from a limited number of colours plus black and white.

In selecting points for this review, much general material has had to be left out: the papers read at the Conference will, however, be made available by the Council. Dr W. D. Wright of the Imperial College discussed colour vision and went some way into the problems of advancing and receding colours, harmony and so on. Mr H. D. Murray contributed two papers—one, more useful than exciting, on terminology; the other, very stimulating, on the technique of using technicians. Finally one must mention the excellent account of factory lighting by Mr E. B. Sawyer, and the concluding Brains Trust of all the speakers, with Mr Basil Marriott in the chair.

One was left with two over-riding impressions. First was the realisation that the designer retains the central position (and indeed no one else desires it). Colour in factories, like colour elsewhere, is best handled by people with sound aesthetic judgment, provided they have the requisite technical skill.

The other impression was of the opportunity that exists for raising the whole standard of industrial design by raising the standard of environment. Here is the link that binds the Council of Industrial Design to all this work. Design is a habit of mind, and in its cultivation the environment plays a substantial part.



The plastic capped 202 pen has the same body as the 303, shown at foot of page

## Off the Record

GOOD DESIGN HAS played a vital part in the "trading-up" policy of the Wyvern Fountain Pen Co Ltd. The new Wyvern models have taken their products out of the price field into the quality field, and with their 303 pen (the highest-priced in their present range), they have succeeded in re-entering all their pre-war export markets which are open today.

The 303 pen, which has a half-metal cap, and the 202, with an all-plastic cap, were both designed by Kenneth Brayshaw, LSIA—with whom Wyvern's first made contact through the Council's Record of Designers.

Each model has a gold nib and rolled-gold fittings, while the body, which is identical for both pens, is of cellulose nitrate. All the parts are produced by machining so that no moulding plant is necessary. Other

design features are: sleek appearance (especially in the 303, with its flush-fitting cap); stud filling mechanism which does away with visible filling levers; and the variety of colours available.

Besides the pen and the matching pencil shown with it *below*, Mr Brayshaw has designed for Wyvern a display pack for a single pen, having a transparent cellulose acetate top on a board base.

He is also the designer of the electrically-driven toy tugboat, made by Cascelloid Ltd, which was illustrated last month (p. 19) and then incorrectly credited to Mr W. A. G. Pugh. DESIGN apologises to both parties for this wrong attribution. Mr Pugh is Cascelloid's chief staff designer; he followed in this appointment Mr Brayshaw, who is now retained by the firm as a consultant.

*The Wyvern 303 pen, with matching pencil, has formed the spearhead of a successful attempt to recapture pre-war export markets for this make*

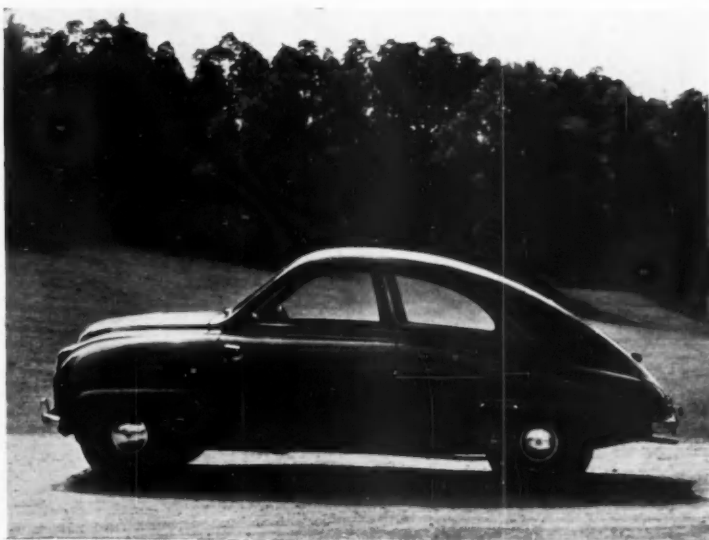




## New Swedish car has smooth under-surface

THE PROVISION OF A smooth under-surface is one of the most effective steps towards a reduction in the wind-resistance of a saloon car, and consequent improvement in its performance. Last month, **DESIGN** commented on a series of experiments in which this fact was made evident; now we record the introduction of a Swedish small car which applies it in practice.

The Saab-92 is a two-door saloon, 12 ft. 6 in. long, with a twin-cylinder two-stroke engine and a top speed (according to its makers) of 68.5 miles an hour. The body, made of steel, is welded to form a unit which is self-supporting and needs no separate chassis. "By this means it has been possible to produce a uniform streamline—the bottom of the car is entirely smooth—which has



been thoroughly tested in a wind-tunnel." So state the manufacturers of the Saab-92—Svenska Aeroplan Aktiebolaget, whose first venture into the motor industry this is.

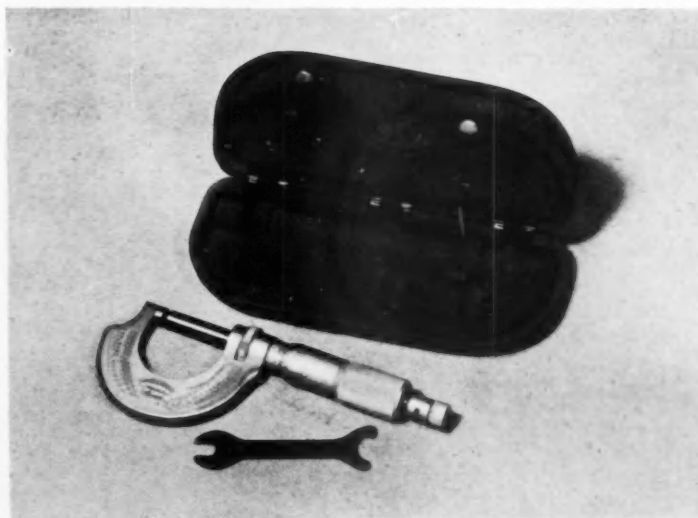
Special sheet metal for use in body-building is not manufactured in Sweden but will have to be purchased

overseas. For this and other reasons, the final production date for the new cars is not yet certain. A batch of three prototypes was built and extensively tested in 1948, but first deliveries of the production model are not likely to be made before the end of the present year.

## Protection for precision

A PLASTICS-MOULDED micrometer case incorporates several interesting features including the Illingworth snap-shut pinless hinge. This hinge (for which patent application has been made) eliminates the need for a front catch and simplifies assembly as the hinges are merely pressed into place in moulded recesses in the lid and base, where they are held fast by spring lugs. Drilling and tapping are rendered unnecessary. Three hinges have to be used in the micrometer case, as the weight of the product, combined with its extreme delicacy, necessitates great care in handling.

The case is moulded from Scarab moulding powder. There are four "sockets" on its inside which help to keep the micrometer and its key firmly in position, as do the two rubber buffers fitted in moulded recesses



in the lid. Extra protection is also given by the felt-like Spraytex coating used for the interior.

Other interesting features of the case are the rounded corners, enabling it to be easily slipped into the pocket, four small feet on the base to prevent its being scratched, a slight

lip moulded on both lid and base to facilitate opening, and the embossed trade-mark of the micrometer manufacturers, Moore & Wright Ltd, on both the outside and inside of the lid. The case, designed by Mr E. I. White, is moulded by Illingworths (Plastics) Ltd.



# New books

## DECORATIVE ART

edited by Rathbone Holme and  
Kathleen Frost

(Studio, 25s)

IT was a pleasure to me to see *Decorative Art* once more. Its re-appearance provides another fragment of evidence that we are painfully groping our way back to the new version of Total Peace.

Yet I feel its title is misleading. (Someone said that an Englishman might even accept a new plan provided it were given a thatched roof!) Mr R. W. Symonds, in his introduction, analyses the present situation quite clearly, but I feel that both title and layout have taken little account of what he says. Here, the boundary between Decorative Art and Industrial Design is treated as No Man's Land. The former has little support today in any country, whereas the latter—at least in England—may well become a popular art. Our problem is utterly different from that of the eighteenth century. We are no longer called on to produce, say, a few chairs for people who were discriminating in what they ate and drank and who read the classics: we need chairs by the million for those who eat canned salmon and fill in football coupons. And it is a matter of desperate urgency that those chairs shall not further degrade standards.

It is indeed encouraging to see what an improvement has been made in housing standards by factory production methods; several pages of *Decorative Art* record this improvement. But surely nothing will seem more odd to our descendants than the fact that the furnishing of houses is dealt with by two groups of people who are working in utterly different ways. The architects by most thorough research have evolved plans which are closely related to the real needs of the people who will live in their houses,

including the building-in of cupboards and wardrobes; yet one may look in vain for signs that the producers and sellers of movable furniture are aware of the clear lead that has been offered to them.

Surely our main job today is to improve the whole standard of design in our everyday production; that is, by machine. Perhaps, as the Editors say, the logical place for the craftsman is as a maker of prototypes for the machine—but that cannot be his sole function. A nobler civilisation will survey most critically the pawky trifles which so often masquerade as handwork today (even in *Decorative Art* occasionally), whilst noting that in our age the limitations and possibilities of the machine gradually clarified themselves.

If *Decorative Art* could help us to sort out this problem it would do an immense service at the present time.

Gordon Russell



frozen-food storage and display cabinet. It was styled by Alfred Imhof Ltd for J. & E. Hall Ltd—an illustration from *Self-Service Trading* by A. Edward Hammond (published by Lockwood Press Ltd, 10s)

## NATURE AND THE DESIGNER

by Thomas J. Corbin

(A. & C. Black Ltd, 7s 6d)

THE DUST-JACKET sets out the author's intentions—to stimulate an awareness of the qualities that constitute good design in buildings, furniture and objects of everyday use (the italics are mine). He hopes to do this by a study of the use of natural objects—flowers, plants, animals, birds—in the design of fabrics, em-

broidery, wood-engraving and other crafts.

Mr Corbin's 45 illustrations and clear text succeed in showing how decorative pattern is derived from natural forms, but it would be difficult indeed to trace any connection between his work and the aesthetics of contemporary buildings and industrial products. It is salutary to be reminded of our debt to Nature—but surely it is in the study of bio-technical processes rather than formalised decoration that the modern architect and product designer finds inspiration?

There are those who believe that between the tradition of humanism in art and the abstract aesthetic of the machine age there is not only a difference in kind—there is a decree absolute. Others may question whether there is any difference between the process of formalising the appearances of nature and the process of abstracting the basic geometrical shapes common to all natural objects.

Provided that one ignores the misleading claim on the dust-jacket, *Nature & the Designer* can be confidently recommended to artist-craftsmen.

Warnett Kennedy

## DESIGN IN CIVILISATION

by Noel Carrington

(Bodley Head, 6s)

THIS NEW EDITION of a book first published in 1935 forms a valuable introduction to its subject. In one chapter of 25 pages Mr Carrington summarises English social history from medieval times onwards. Having given the reader this background information, so necessary to an understanding of the present position of design, he gives a warning which too many historians have forgotten, though it is equally necessary: "Tradition is not an unencumbered legacy to the manufacturer today, but rather a mental hindrance, while to the designer it proves more often a snare than a guide."

Other chapters of *Design in Civilisation* discuss industrial design from the viewpoints of designer, manufacturer, distributor and public. A brief but masterly account of the influence of William Morris in Britain and on the Continent should be read

especially by those of the younger generation who bandy Morris's name about without any real knowledge of his teachings. A. D.

### Book list

*Modern Publicity 1942-48* edited by Frank A. Mercer and Charles Rosner—the first post-war edition of this well-known yearbook. (Studio, 30s).

*Posters* by A. M. Cassandre. A selection of photographs of his posters from 1923 to 1937 with an introduction by Maximilien Vox. (Zollikofer and Co, St Gall, 52s 6d)

*The Script Letter* by Tommy Thompson—reprint of a standard work on its subject. (Studio, 12s 6d)

*Penrose Annual 1949* edited by R. B. Fishenden. Forty-third edition of this internationally known review of the graphic arts—remarkable value at 21s (Lund Humphries)

*Furniture* by Gordon Russell. No. 3 in the "Things We See" series. (Penguin, 2s 6d)

*Built-in Furniture in Great Britain* by Frederick Gibberd. Bilingual, with a French translation of text and captions. (Tiranti, 6s)

*Textiles by Britain* by Grace Lovat Fraser. History and geography of the industry. (Allen & Unwin, 25s).

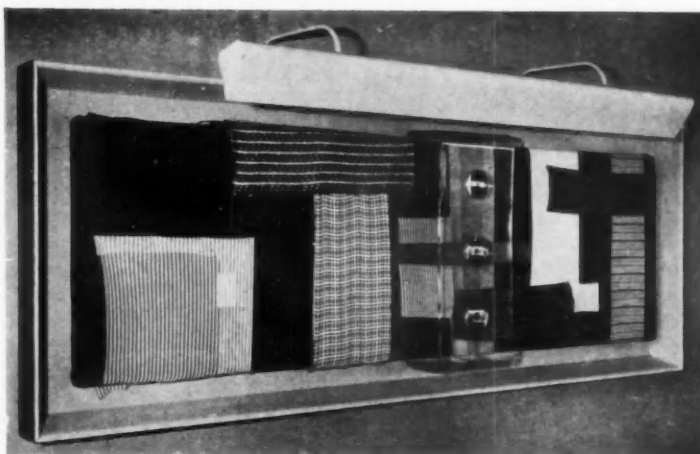
*Silk* by F. O. Howitt. Handbook on its origin, properties and economics. (Textile Institute, 1s 6d)

*Research in Industry*: published for Department of Scientific & Industrial Research and Board of Trade. Compilation of 19 articles published in the *Board of Trade Journal* between May 1947 and March 1948. (HMSO, 1s 6d)

*Flooring Materials* by F. R. S. Yorke and C. R. Fowkes. Detailed and comprehensive, with schedule of recommended materials and their properties. (Faber, 42s)

*Wedgwood Ware* by W. B. Honey and *Greek Pottery* by Arthur Lane. Two additions to the series of Faber Monographs on Pottery and Porcelain, both primarily written for the connoisseur. The former points out that the first Josiah Wedgwood's name was made, less by ornamental pieces than by useful wares—made for the most part in plain cream-coloured earthenware. (Faber, each 21s)

S. K. L.



Perspex magnifiers facilitate inspection of fabrics displayed on this wall panel

## Design Centre for Rayon Industry

THE RAYON INDUSTRY Design Centre, long awaited, has now become a reality—with a home of its own at 1 Upper Grosvenor Street, London W1.

The premises are in a house which had suffered considerable bomb damage, though it was structurally sound. Its interior has been completely replanned by Maxwell Fry and Jane Drew, FF RIBA. There is a stage for the display of clothes and for fashion parades by live models. There are wall panels and recesses for the effective showing of fabrics in small groups. Draped fabrics are illuminated by dimmer-controlled fluorescent lighting in colours—an installation said to be the first of its kind permanently installed anywhere in Europe, which enables materials to be seen in the natural lighting conditions of any part of the world.

Less spectacular services of the Design Centre include a reference collection of sample fabrics and a library of books dealing with design generally as well as design in relation to textiles. The Centre will co-operate closely with the British Rayon Research Association—which is planning to build, in Lancashire, the largest rayon research station in the world. Relations between technical and art schools and the Design Centre will be maintained through

an Education Committee; it is empowered to establish scholarships and make grants. Studio space is available in the Centre for a limited number of ex-students from recognised art schools while awaiting jobs or commissions.

Director of the Centre is Mr J. Dennis Lennon, MC, ARIBA, who, in co-operation with the architects, has designed almost all the furniture used in No 1 Upper Grosvenor Street. Its smooth surfaces of light-coloured wood contrast effectively with the deep shades of carpets and the patterns of striped wallpaper; the chair coverings are, of course, of rayon. The rayon industry has supplied all the furnishings for the Centre, including the carpets—which represent an unusual application of the material.

In a booklet announcing the establishment of the Centre, the point is made that "a design centre is the instrument of the industry it serves and not of the Government nor of the Council of Industrial Design, and the co-operative basis of a centre whereby ideas are pooled does nothing to vitiate commercial enterprise or individuality." The Rayon Centre has been formed by twelve constituent associations representing various groups of makers, processors and large-scale users of the material.



Printing (in the words of Beatrice Warde) "introduced the whole notion of mass production to Europe. . . . Its technique has always been that of true mass production." And printed matter, in common with other industrial products, must at times be modernised: in some cases—e.g., timetables, forms, for sheer efficiency; in others, to keep in harmony with the changing spirit of the age.

The old-established *Burlington Maga-*

*zine* has been redesigned, inside and out, by Vivian Ridler. On its new cover (right) a less aggressive style of lettering has been adopted—a style more in keeping with the *Burlington's* subject (the fine arts) and its editorial tone. The distorted hand-drawn letters of the old title are now replaced by capitals of the Albertus type-face, reversed white against a solid colour. Beneath the title is an oval medallion designed by Edward Bawden.



A range of coffee percolators made by F & F Electrical Fittings Ltd has been partially redesigned by F. H. K. Henrion, F.S.I.A. The new model (above right) requires less space between shelves for its storage, as the flat lid reduces the overall height: it is easier to keep clean because the new Pyrex glass top is of less complex shape; and it is more comfortable to hold because of the completely redesigned handle. [This has, in addition, a number of technical advantages: see Design and Production section, p. 22.]

The percolator is made in three different finishes—copper (unplated), chromium plate and nickel plate. There are two sizes (1½-pint and three-pint) with two models in each size: (a) with electric plug-point and interior heating element; (b) as illustrated here, for use with an external source of heat—i.e., on a gas or electric cooker. With this latter model there is a ring-shaped plastic stand which fits around the base of the percolator and prevents it from burning the table-top or other polished surface on which it is placed.

## Before and after

MATERIAL SHORTAGES and post-war difficulties have kept down, to a tithe of its potential volume, the stream of new designs going into production; but they have not wholly checked its flow. New products have assumed new forms and established products have been redesigned to bring them into line with changing demands. In British industry as a whole, the total of recent redesigns is more impressive than is generally realised. From the few examples illustrated here, and from others like them, it is possible to draw an outline picture of the present state of design.

1. The underlying reason for redesign is generally a desire for (a) more efficient performance and for (b) more pleasing appearance. Sometimes one is the more important, sometimes the other. Generally they are so closely connected that it is impossible to make a clear distinction.

2. The improvement of design is not a monopoly of consultants or of staff designers; both do good work.

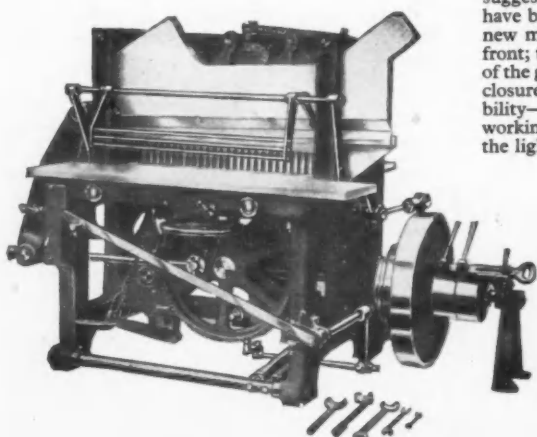
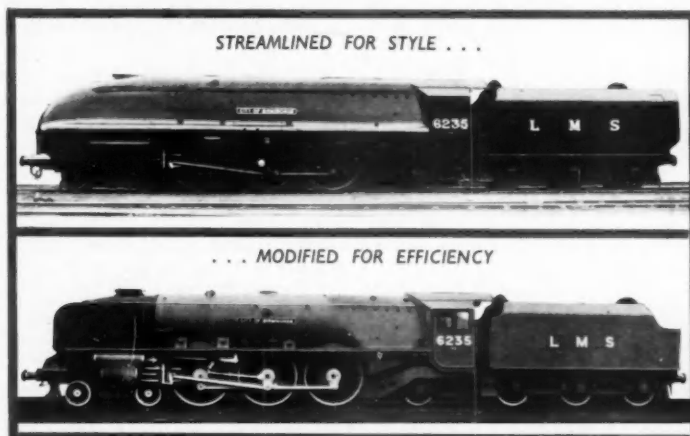
3. What is referred to broadly as redesign is the task of many different technicians: examples illustrated here involve engineers in various specialised fields (perhaps too specialised: see p. 5), a typographer, and a consultant designer best known for his work in advertising and display.

4. The need for redesign is now realised by makers of capital goods as well as consumer goods.

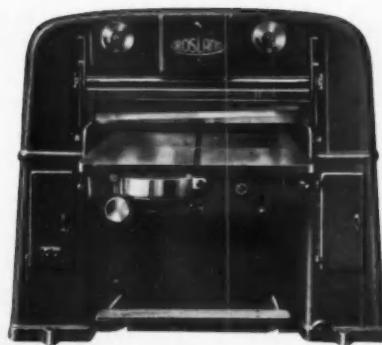


These two pictures are of the same locomotive and the lower picture is the later version. . . . The *City of Birmingham* is one of the *Coronation* class, the first series of streamlined LMS locomotives, which gained wide publicity in the 1930's and were perhaps the best-looking engines of their kind in the country.

LMS engineers found that the debatable advantages of this form of streamlining were outweighed by the evident disadvantage of inaccessibility. Shortly before LMS became part of BR, they decided to discard the fairings "in order to provide greater accessibility to the engine parts and so make for easier maintenance in the running sheds and workshops." It will be noticed that they retained one piece of streamlining which had a real usefulness—the draught deflectors alongside the front of the boiler. These help to direct smoke and steam upwards, out of the crew's and passengers' field of vision.



Over sixty years ago William Crosland invented the self-clamping action of the Crosland *Advance* guillotine (for cutting paper, card and similar substances). Until recently the looks of the machine plainly suggested age; now, in a thorough redesign, mechanical improvements have been made and the appearance has been drastically altered. The new model requires less floor-space; all controls are grouped at the front; the main pedestal is a massive monobloc casting, yet the weight of the guillotine is not increased. The makers claim that: "The total enclosure of the *Advance* has not been obtained at the expense of accessibility—all cover plates are easily removable to allow inspection of the working parts, and to facilitate lubrication. . . .": a significant claim in the light of the railway engineers' experience noted above.



The Armstrong-Siddeley car has been as widely illustrated in the Press as it has been acclaimed in markets at home and overseas: but there are two good reasons for illustrating it again. 1, it was the first British car of post-war design to go into quantity production (1945), and it has remained unaffected by influences which have since become powerful in the motor industry; it cannot compete for the doubtful honour bestowed by the *Evening Standard* on another British make, "redesigned twice since the war." 2, its clean and distinctive lines cannot be appreciated fully unless it is seen, as here, alongside a predecessor dating from Armstrong-Siddeley's pre-war days.





## Plastics for packaging

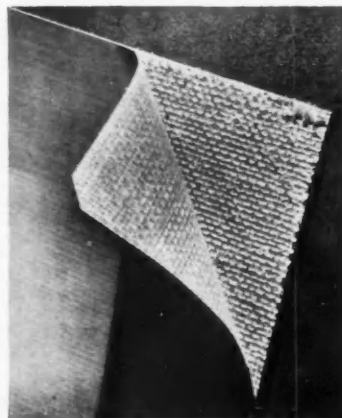
THREE DEVELOPMENTS IN the making of plastics for packaging, recently announced by British Celanese Ltd, are: the production of spirally-wound containers from Clarifoil cellulose acetate foil; the lamination of Clarifoil to other materials, including metal foils; and the lamination of Celastoid, a heavier form of sheeting, with hessian.

Spirally-wound Clarifoil is already being used by manufacturers for the packaging of goods ranging from toothbrushes to hosiery. An important feature of the machine for making the spiral is a device for the automatic feeding of liquid acetone on to the edges of a strip of spirally-rolled Clarifoil. The acetone sets immediately, thus forming a spiral seam. Various effects can be obtained by using coloured Clarifoil, especially

with acetone of a contrasting colour. A variety of sizes and cross-sections can be produced. It should be noted that the plastic is not heat-sealing, although it can be effectively welded by radio-frequency heating.

Besides metal foils, Clarifoil can be laminated to glassine, paper or cardboard. The resultant composite products are claimed to be tough, flexible, moisture-vapour-proof, and suitable for the unit-packaging of powders, tablets or confectionery. The laminates of paper and cardboard can also be used for magazine and book covers.

Laminations of Celastoid sheeting to hessian are suitable for lids and panels of crates. They may be produced in various thicknesses in almost any colour, either transparent or opaque, matt or embossed. Celas-



Courtesy Plastics

*Laminate of Celastoid and hessian partly dissected, showing internal layers*

toid sheets may also be reinforced with wire gauze to give extra strength and toughness.

## New handle simplifies assembly

A NEW HANDLE, which provides a firm, comfortable grip for large or small hands, is used on the water boiler illustrated below and coffee percolators on p. 20. It replaces an older pattern which was less attrac-

tive in appearance, less pleasant to hold and more likely to harbour dirt.

Attaching the new handle requires two operations as against five for the old. It is secured to the body of the vessel by three rivets, and to the

handle by two more. It gives the same rigidity as a conventional handle attached at both ends, and its long "spur" prevents the user's hand from accidentally touching the hot vessel. Designed by F. H. K. Henrion for F & F Electrical Fittings Ltd, the new handle is moulded in black Bakelite by V. D. A. Ltd.

*A flush-fitting metal bracket attaches handle to vessel in two riveting operations only, using a total of five rivets*





# Comment

QUOTATION FROM a letter received by an English art school from a third-year industrial design student in USA:

In absorbing the more practical British ideas of design I hope to offset the influence supersonic streamlining is having on me and American designs in general.

It is evident that the bulbous shapes of so-called streamlining are not without critics even in the land of their origin.

★ ★

IF FURTHER EVIDENCE of this fact is required, it can be found in the more informed sections of the American press.

Following *Fortune's* outspoken (and widely publicised) criticisms of design trends in the US motor industry, *Product Engineering* published this comment:

In redesigning modern products, too much emphasis is placed upon "streamlining," which usually means merely a new housing or shell for old mechanisms.

The words gain significance from their context—an article by an industrial designer, Martin Brownshield.

★ ★

FROM A RECENT statement by Mr E. Ransom Harrison, chairman of the Rover Company, I quote these intriguing words: "It has been our policy to endeavour to bring our engineering up to date—and even ahead—to start with, and to leave the more controversial question of new styling to be dealt with when public opinion in this respect is more firmly crystallised."

In many arguments of recent years, the Rover has been held up—for praise or blame, according to the viewpoint of the arguer—as an example of typical British style in motor-car design. Now that a change is hinted at, designers will await with interest some indication of its direction.

★ ★

A DESIGN LABORATORY recently set up by the Brooklyn Museum in New York City is, I believe, the first

of its kind. It is intended to provide American designers with a professional working laboratory for comparative analysis of ancient and modern basic forms which might help with the solution of current design problems. The laboratory comprises workrooms, a storeroom, offices, a reception room, and the laboratory room itself containing such varied equipment as a potter's wheel, a hand loom, a microscope, cutting tables and power sewing-machines.

The laboratory is for members only, who, paying annual fees of \$500 for associate membership and \$100 for individual membership, would seemingly deserve such facilities.

★ ★

IN THE PLASTICS industry (as, indeed, in most others) there have always been a few firms which take design seriously—as a policy and not a stunt. Among these leaders I count Runcolite Ltd, for their carefully designed table and kitchen ware and other domestic mouldings. In this Company's latest export booklet—in itself an example of lively layout—I read the following in the managing director's foreword:

From the first sample moulding to the present volume output every Runcolite article has been devised by a trained industrial designer and today the name of our consultant designer, Gaby Schreiber, FSIA, stands supreme in the field of plastics moulding and fabrication. In our company, industrial design is not something that is added at the end of the

process, a surface dressing for shop-window effect. It is fundamental to our whole policy of production. It starts with research among the public to discover what is actually needed in a given market or in a given article. It proceeds through research into the best materials, into the surest methods of manufacture, into the most practical shapes for use and into the final test of beauty itself, so that at the end when a Runcolite line goes into production we can safely say that the customer will get something that is needed, that is well-made, that is practical in use and that is good to look at.

That, in brief, is the whole story of design in industry, is it not?

★ ★

THE COUNCIL IS now assured of a niche in the hall of fame. A recent quiz in a popular weekly paper (*Woman*) asked its readers what were the two organisations known by the initials CID: and in the answer the Council of Industrial Design was given precedence over the older CID.

★ ★

ANY ADDED WORD of mine could only spoil the effect of this quotation from a London suburban newspaper, reporting a local Townswomen's Guild meeting:

The meeting was addressed by Miss Wren, from the Exshott Potteries, who gave an interesting insight into the making of pottery. Questions were put to the speaker who also told members the value of pottery they had brought with them.

*Quex*



Right for anything, my dear sir, absolutely anything: streamlined train, radio set, vacuum cleaner, pencil sharpener. . . .

# News

## British designers' success

ONE OF THE two first prizes of \$5,000 awarded in the international low-cost furniture competition sponsored by New York's Museum of Modern Art and Museum Design Project Inc has been won by two British designers. They are Mr Robin Day, FSIA, ARCA, and Mr Clive Latimer, MSIA, both of London. Their prize-winning designs—cabinets made from sectional units—employ a new technique invented by Mr James Henderson, of a Fifehire manufacturing firm. This enables top, back and bottom of each cabinet to be fabricated of plywood in one continuous piece at a rate of one every three minutes on an automatic machine. Other advantages of the technique are that the number of joints is reduced to two and that only half the normal amount of wood is used. It is understood that the basic design can easily be adapted for a sideboard, bookcase or secretaire. When mass produced, the furniture will cost less than comparable British utility designs.

Designs were judged by a jury of

*Prizewinners in the international furniture design competition—Robin Day (left) and Clive Latimer*



seven (including Mr Gordon Russell, director of the Council of Industrial Design) and Day and Latimer's designs were adjudged to be so outstanding that no second or third prize was awarded in their section.

Other prize-winners include Mr D. R. Knorr and Professor G. Leowald, between whom was divided the first prize of \$5,000 for seating units. The \$2,500 prize for the best research report was won by Mr J. L. Prestini and the Armour Research Foundation of the Illinois Institute of Technology, where he works. The Simmons Prize, offered for a sleeping unit convertible for daytime use, was not awarded as none of the designs submitted was considered superior to those already in use.

Entries totalled nearly 3,000 from 31 different countries. The largest foreign contribution was Germany's.

## New Fellows of SIA

SEVEN MORE MEMBERS of the Society of Industrial Artists have been appointed Fellows. They are Mrs Gaby Schreiber (for general industrial design) and Messrs H. Gibbon (machines), W. H. Russell (furniture), David Booth (furniture), Robert Gutmann (general industrial design), Laurence Scarfe (illustration and typography) and Lynton Lamb (illustration).

## New packages wanted

MANUFACTURERS OF PACKAGES illustrating the use of new materials and production techniques, or possessing unusual design features, are invited to write to the Council of Industrial Design in connection with an exhibition to be held in Murray

House, London, in May. The Institute of Packaging and PATRA are collaborating with the Council in arranging this exhibition.

## Design Weeks programme

CONTINUING ITS POLICY of publicising good design—and so increasing the demand for well-designed products—the Council of Industrial Design is holding Design Weeks this year in the Potteries (14–19 March), Nottingham (4–9 April), Bristol (13–18 June), Southampton (11–16 July), Bradford (12–17 September). Details will be announced locally.

## Industrial Finishes Exhibition

AN HONORARY ADVISORY council for the Industrial Finishes Exhibition to be held at Earls Court from 31 August to 13 September 1949 (see *DESIGN*, January, p. 24) has been formed under the chairmanship of Gilbert McAllister, MP.

Preparation of the central technical exhibit by the advisory technical committee, with Mr Warnett Kennedy (the architect designer to the exhibition), is already in progress. Avenues leading from this exhibit will illustrate various types of industrial finishes, such as base metal coatings, precious metals, dipped and sprayed coatings, vitreous enamels and anodising finishes. Subcommittees for these categories have already been set up by the advisory technical committee.

## New address for DIA

HEADQUARTERS OF THE Design and Industries Association are now at 13 Suffolk Street, Haymarket, London SW1. Phone: whitehall 0540.

## SUBSCRIPTIONS

*DESIGN* is obtainable by subscription only (25s a year, post free), payable direct to HM Stationery Office, P.O. Box 569, London SE1, or branches, or through booksellers. All correspondence on matters other than subscriptions should be addressed to The Editor, *DESIGN*, Tilbury House, Petty France, London SW1.

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The Editor welcomes contributions and suggestions for articles. Material published will be paid for.

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# RAYON

## design centre

The Rayon Industry Design Centre opens on February 21st at

**1 Upper Grosvenor Street, London, W.1. Regent 7446**

Rayon Producers Committee

Rayon Crepe Dyers Group

Rayon Staple Spinners & Doublers Association

Spun Rayon Fabric Dyers Group

British Rayon Crepeists Association

Federation of Calico Printers

Rayon Processors Association

Cotton & Rayon Merchants Association

Rayon Weaving Association

Silk & Rayon Users Association

Flat Dyed Rayon Group

National Hosiery Manufacturers Federation

## British Rayon Federation

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DESIGN is published for the Council of Industrial Design, Tilbury House, Petty France, London SW 1 (Scottish Committee: 95 Bothwell Street, Glasgow C 2) by His Majesty's Stationery Office, and printed in Great Britain by Benham and Company Limited, Colchester.

S.O. Code No. 88-1266-2-49.\*



